

CLAIMS:

1. A method of creating an image, said method comprising the steps of:

(a) forming bands of the image as follows:

- 5 (1) rendering a band of the image from objects in a display list;
- (2) compressing the band of the image;
- (3) storing the compressed band of the image; and
- (4) repeating steps (1) to (3) for each band of the
- 10 image;

(b) editing a selected band of the image by:

- (1) expanding the selected band of the stored image;
- (2) rendering an additional band of the image from additional objects in said display list;
- 15 (3) compositing the additional band with the selected band to form an edited selected band of the image;
- (4) compressing the edited selected band of the image; and
- 20 (5) storing the compressed edited selected band;

(c) repeating steps (b) (1) - (b) (5) for each band of the image; and

(d) repeating steps (b) and (c) as required to create a final edited image.

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2. A method as claimed in claim 1, wherein the selected bands are selected consecutively across said image.

3. A method as claimed in claim 1, comprising the  
5 further steps of:

(e) expanding bands of the final edited image; and  
(f) displaying the expanded bands to reproduce the final edited image.

4. A method as claimed in claim 1, wherein adaptive  
10 discrete cosine transform methods are used for compressing and expanding bands of the image.

5. A method as claimed in claim 4, wherein said adaptive discrete cosine transform methods are implemented in accordance with ISO/IEC JTC1/SC21WG8 JPEG  
15 technical specifications.

6. A method as claimed in claim 1, wherein said rendering and expanding steps produce, and said compositing and compressing steps act upon red (R), green (G), blue (B) and matte (M) pixel image data, said  
20 rendering steps being performed by a render processor, said compositing steps being performed by a graphics engine and an associated compositing memory, said compressing and expanding steps are performed by a compander, with said image data being stored in an  
25 associated storage means.

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7. A method as claimed in claim 6 including the image processing step of buffering a file image (BFI), wherein a band of RGB pixel image data is transferred from said compositing memory to a buffer location in said storage means.

8. A method as claimed in claim 6 including the image processing step of buffering a file image and matte (BIM), wherein a band of RGBM pixel image data is transferred from said compositing memory to a buffer location in said storage means.

9. A method as claimed in claim 6 including the image processing step of compositing using both mattes (CBM), wherein RGBM pixel image data is read from said compositing memory, composited with RGBM pixel image data generated by said graphics engine and written back into said compositing memory, the compositing operation being controlled by a combination of matte data in said compositing memory and transparency data generated by said graphics engine.

10. A method as claimed in claim 6 including the image processing step of clearing the compositing memory (CCB), wherein bands of opaque white pixel image data are generated by said graphics engine and written into said compositing memory.

11. A method as claimed in claim 6 including the image processing step of creating a display list (CDL) in a

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computing means connected to said render processor means, said display list being composed of data describing the image selected from the group consisting of graphic objects, text, and compressed image data.

5 12. A method as claimed in claim 6 including the image processing step of compositing a file using a file matte (CFF), wherein RGB pixel data is read from said compositing memory, composited with matte data generated by said graphics engine and written back to said  
10 compositing memory.

13. A method as claimed in claim 6 including the image processing step of compressing a file image (CFI), wherein a predetermined number of lines of RGB pixel image data are read from said compositing memory,  
15 compressed by said compander and written to a compressed image destination location in said storage means.

14. A method as claim in claim 13, wherein said pixel image data is stored in said compositing memory in raster format and is read by said compander in a square  
20 array of pixel blocks.

15. A method as claimed in claim 6 including the image processing step of compressing a file matte (CFM), wherein a predetermined number of lines of matte pixel data are read from said compositing memory and  
25 compressed by said compander, the compressed data being

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stored in a compressed matte destination location in said storage means.

16. A method as claimed in claim 15, wherein said matte pixel data stored in said compositing memory is in  
5 raster format and is read by said compander as a square array of pixel blocks.

17. A method as claimed in claim 6 including the image processing step of compositing a file using an object matte (CFO), wherein RGB pixel image data is read from  
10 said compositing memory, composited with RGB pixel data generated by said graphics engine, and written back into said compositing memory at corresponding addresses.

18. A method as claimed in claim 17, wherein said compositing is controlled by transparency data generated  
15 by said graphics engine, said transparency data being in the form of object based data expanded into data selected from the group consisting of transparency runs, transparency blends, and bit map data.

19. A method as claimed in claim 6 including the image  
20 processing step of compositing a file using page matte (CFP), wherein RGBM pixel image data is read from said compositing memory, composited with data generated by said graphics engine, and written back into said compositing memory.

25 20. A method as claimed in claim 19, wherein said RGB data generated by said graphics engine is in the form of

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RGB pixel data derived from file image data transferred to said graphics engine, said compositing being controlled by matte data in said compositing memory.

21. A method as claimed in claim 6 including the image  
5 processing step of compositing a matte only (CMO),  
wherein matte pixel data is read from said compositing  
memory, composited with matte data generated by said  
graphics engine, and written back into said compositing  
memory.
- 10 22. A method as claimed in claim 6 including the image  
processing step of compositing an object based image  
(COI), wherein RGB pixel image data is read from said  
compositing memory, composited with RGB data generated  
by said graphics engine, and written back into said  
15 compositing memory.
23. A method as claimed in claim 22, wherein said RGB  
data generated by said graphics engine is in the form of  
object based data expanded into colour runs or colour  
blends, said compositing being controlled by  
20 transparency data generated by said graphics engine in  
the form of object based data.
24. A method as claimed in claim 6 including the image  
processing step of compressing a page image (CPI),  
wherein a predetermined number of lines of RGB pixel  
25 image data in said compositing memory are compressed by  
said compander, the compressed data being stored in a

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compressed page image destination location in said storage means.

25. A method as claimed in claim 24, wherein said processing step is performed 810 times when compositing  
5 an A3 page image, and 405 times when compositing an A4 page image.

26. A method as claimed in claim 6 including the image processing step of compressing a page matte (CPM), wherein a predetermined number of lines of matte pixel  
10 data in said compositing memory are compressed by said compander, wherein said compressed matte data being stored in a compressed page matte destination location in said storage means.

27. A method as claimed in claim 6 including the image processing step of creating a render list (CRL), wherein  
15 said display list is read from a memory store of an associated computing means and stored as a render list in said storage means, said render list being directly readable by said render processor for performing  
20 rendering operations.

28. A method as claimed in claim 27, wherein said display list results in the creation of compressed image files.

29. A method as claimed in claim 6 including the image  
25 processing step of compositing to a workscreen (CTW), wherein RGB pixel image data is read from a workscreen

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memory associated with a workscreen display, composited with RGB data generated by said graphics engine, and written back to said workscreen memory.

30. A method as claimed in claim 6 including the image processing step of compositing using a workscreen matte (CWM), wherein RGBM pixel data is read directly from a workscreen memory associated with a workscreen display, composited with RGBM data generated by said graphics engine and written back to said workscreen memory.

31. A method as claimed in claim 6 including the image processing step of drawing workscreen pixels (DXP), wherein an associated computing means generates pixels directly which are written directly into a workscreen memory associated with a workscreen display.

32. A method as claimed in claim 6 including the image processing step of expanding a file image (EFI), wherein a predetermined number of lines of a compressed file image are expanded from said storage means by said compander into RGB pixel image data, the RGB pixel image data being stored in said compositing memory.

33. A method as claimed in claim 6 including the image processing step of expanding a file matte (EFM), wherein a predetermined number of lines of compressed file matte data are expanded into matte pixel data by said compander, said matte pixel data being written directly to a matte plane of said compositing memory.

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34. A method as claimed in claim 6 including the image processing step of expanding a page image (EPI), wherein a predetermined number of lines of compressed page image are expanded from said storage means by said compander  
5 into RGB pixel image data, the RGB pixel image data being written directly into said compositing memory.
35. A method as claimed in claim 6 including the image processing step of expanding a page matte (EPM), wherein a predetermined number of lines of compressed page matte  
10 data are expanded from said storage means by said compander into matte pixel data, said matte pixel data being written directly to a matte plane and said compositing memory.
36. A method as claimed in claim 6, wherein said  
15 compander performs adaptive discrete cosine transformation in accordance with JPEG technical specifications.
37. A method as claimed in claim 36, wherein said compander also creates in said compressed image data a  
20 text detect array to permit text detection, and marker codes inserted at the end of each band of compressed image data.
38. A method as claimed in claim 37, comprising the step of filtering compressed image data to the JPEG  
25 format (FAJ), wherein the text detect array is discarded.

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39. A method as claimed in claim 37, comprising the step of filtering JPEG file data into compressed image data (FJA), wherein said text detect array is cleared so as to indicate that each cell of said array is treated  
5 as it were an image cell and not a text cell, and inserting marker codes at the end of each band.

40. A method as claimed in claim 6 including the image processing step of formatting a file image (FFI), wherein said render processor creates a header command  
10 for said graphics engine, which is written to said graphics engine specifying a number of pixels to be composited, a start pixel address, and a compositing mode

41. A method as claimed in claim 40, wherein RGB pixel  
15 data is transferred from a buffer location of said storage means into said render processor to provide RGB pixel image data as input for said graphics engine.

42. A method as claimed in claim 6 including the image processing step of formatting a file image and matte  
20 (FIM), wherein said render processor creates a header command for said graphics engine, which is written to said graphics engine specifying a number of pixels to be composited, a start pixel address, and a compositing mode.

25 43. A method as claimed in claim 40, wherein RGBM pixel image data is transferred from a buffer location of said

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storage means into said render processor to provide RGBM pixel image data as input for said graphics engine.

44. A method as claimed in claim 6 including the image processing step of fast write of a file image (FWI),  
5 wherein a predetermined number of lines of compressed file image in said storage are expanded into RGB pixel image data by said compander and written into said compositing memory.

45. A method as claimed in claim 6 including the image  
10 processing step of having the processing step of loading Huffman tables for compression, wherein Huffman tables required for adaptive discrete cosine transformation compression of pixel image data are stored in said storage means and are loaded from said storage means  
15 into said compander prior to compression processing.

46. A method as claimed in claim 6 including the image processing step of loading of Huffman tables for expansion, wherein Huffman tables required for adaptive discrete cosine transformation expansion of compressed  
20 image data are stored in said storage means and are transferred from said storage means to said compander prior to expansion processing.

47. A method as claimed in claim 6 including the image processing step of printing (PRN), wherein compressed  
25 page image data is expanded from said storage means by said compander and written into said compositing memory

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as pixel image data, said pixel image data being buffered from said compositing memory to a printer for displaying said page image.

48. A method as claimed in claim 47, wherein said RGB  
5 pixel image data is converted into magenta, cyan, yellow and black image data for input to said printer.

49. A method as claimed in claim 6 including the image processing step of a quick software zoom (QSZ), wherein said graphics engine reads a predetermined number of  
10 lines of RGBM pixel image data via said render processor from a buffer location of said storage means, said graphics engine creating a zoomed version of said image pixel data for display on an associated workscreen.

50. A method as claimed in claim 6 including the image  
15 processing step of reading a compressed file from disk (RAD), wherein a compressed image file is stored on a hard disk associated with a computing means, said compressed image file being read from said hard disk by said computing means and transferred to a location in  
20 said storage means.

51. A method as claimed in claim 6 including the image processing step of resizing a compressed image file (RAF), wherein said render processor reads a predetermined number of lines of RGBM pixel data from a  
25 buffer location of said storage means and creates a resized version of said data using a bi-linear sample

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rate conversion, the resized version being written back into the buffer location.

52. A method as claimed in claim 6 including the image processing step of render a band of object matte (RBM),  
5 wherein a render list of graphics commands are provided in said storage means and are read by said render processor, said render processor providing a series of graphics engine commands to said graphics engine for the rendering of matte pixel data.

10 53. A method as claimed in claim 6 including the image processing step of rendering a band of objects (RBO), wherein a render list residing in said storage means is interpreted by said render processor to provide graphics engine commands to said graphics engine for rendering of  
15 a band of objects.

54. A method as claimed in claim 53, wherein font descriptions required for text are available in said storage means and also input to said render processor.

55. A method as claimed in claim 6 including the image  
20 processing step of reading a display list from disk (RDD), wherein associated computer means includes a disk storage means and said display list is read from said disk storage means into said computer means for transfer to said render processor.

25 56. A method as claimed in claim 6 including the image processing step of receiving a display list from a

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network (RDE), wherein an associated computer means is connected to a communication network in which a display list is read from said communication network into said computer means for transfer to said render processor.

5 57. A method as claimed in claim 6 including the image processing step of rendering a matte with a file image (RMF), wherein said render processor converts a render list residing in said storage means into graphics engine commands that are input to said graphics engine, said  
10 graphics engine receiving RGB pixel image data from a buffer location of said storage means via said render processor, said graphics engine outputting RGBM pixel data.

15 58. A method as claimed in claim 6 including the image processing step of scanning (SCN), wherein an image scanner provides RGB pixel image data of a scanned page image which is buffered into said compositing memory, said image pixel data being buffered from said  
20 compositing memory into said compander and compressed for storage in said storage means as a compressed page image.

59. A method as claimed in claim 6 including the image processing step of scanning to a workscreen (STW), wherein an image scanner provides RGB pixel image data  
25 of a scanned page image which is buffered into said compositing memory, said pixel image data being buffered

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from said compositing memory to a display memory associated with a workscreen for the display of image pixel data.

60. A method as claimed in claim 59, wherein a pan/zoom  
5 controller connected between said compositing memory and said display memory allows for augmenting the image for display on the workscreen display.

61. A method as claimed in claim 6 including the image  
processing step of writing a compressed image to disk  
10 (WAD), wherein compressed image data is read from said storage means to an associated computer means and stored in a disk storage means connected to said computing means.

62. A method as claimed in claim 6 including the image  
15 processing step of writing a display list to disk (WDD), wherein an associated computing means creates a set display lists and said display lists are transferred from said computing means to a disk drive storage means connected thereto for storage.

20 63. A method as claimed in claim 6 including the image processing step of directly rendering objects (XRO), wherein an associated computing means directly creates graphics engine commands which are transferred from said computing means via said render processor to said  
25 graphics engine for the rendering of objects.

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64. A method as claimed in claim 6 including the image processing step of zooming to a workscreen (ZTW), wherein compressed page image data is expanded from said storage means by said compander and written as pixel image data into said compositing memory, said pixel image being transferred to said graphics engine for writing said data to a pan/zoom controller, said pan/zoom controller augmenting said data prior to transferring said data to a display memory associated with a workscreen display.

65. A method as claimed in claim 6, including the image creation process of compositing layers of objects with a compressed image, said image creation process comprising the sequential processing steps of:

- (i) creating a display list;
  - (ii) creating a render list from said display list;
- repeating the following steps for each band of the image:
- (iii) simultaneously rendering a band of objects, and loading Huffman tables for expansion;
  - (iv) simultaneously rendering a band of objects, and expanding a page image from said storage means;
  - (v) rendering a band of a first object, loading Huffman tables for compression, and compositing the object-based image;

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(vi) for each further object of the image to be created, rendering a band of the further object, and compositing the object-based image; and

5 (vii) compressing a band of the page image.

66. A method as claimed in claim 6, including the image creation process of compositing a file using an image matte, said image creation process comprising the sequential processing steps of:

10 (i) creating a display list;  
(ii) creating a render list from said display list;

repeating the following steps for each band of the image:

(iii) loading Huffman tables for expansion;  
15 (iv) expanding a band of a page image;  
(v) expanding a band of a file image;  
(vi) expanding a band of a file matte;

(vii) buffering the band of the file image and the matte;  
20 (viii) formatting a band of the file image and matte;  
(ix) simultaneously loading Huffman tables for compression, and compositing the band of the file image using file matte; and

25 (x) compressing a band of the file image.

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67. A method as claimed in claim 6, including the image creation process of compositing a file using a page matte, said image creation process comprising the sequential processing steps of:

- 5       (i) creating a display list;  
         (ii) creating a render list from said display list;  
repeating the following steps for each band of the image:

- 10       (iii) loading Huffman tables for expansion;  
         (iv) expanding a band of a page image;  
         (v) expanding a band of a page matte;  
         (vi) expanding a band of a file image;  
         (vii) buffering the band of the file image;  
         (viii) formatting a band of the file image;  
15       (ix) simultaneously loading Huffman tables for  
              compression, and compositing the band of the  
              file image with the page matte; and  
         (x) compressing a band of the page image.

68. A method as claimed in claim 6, including the image  
20 creation process of compositing a file using both page  
and file mattes, said image creation process comprising  
the sequential processing steps of:

- (i) creating a display list;  
         (ii) creating a render list from said display list;  
25 repeating the following steps for each band of the  
image:

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- (iii) loading Huffman tables for expansion;
- (iv) expanding a band of a page image;
- (v) expanding a band of a page matte;
- (vi) expanding a band of a file image;
- 5 (vii) expanding a band of a file matte;
- (viii) buffering the band of the file image and the  
file matte;
- (ix) formatting a band of the file image and matte;
- (x) simultaneously loading Huffman tables for  
10 compression, and compositing using both file  
and image matte; and
- (xi) compressing a band of the page image.

69. A method as claimed in claim 6, including the image  
creation process of printing object graphics and text  
15 only, said image creation process comprising the  
sequential processing steps of:

- (i) creating a display list;
- (ii) creating a render list from said display list;
- (iii) loading Huffman tables for compression;
- 20 repeating the steps (iv) to (vii) for each band of the  
image:
- (iv) rendering a band of objects and clearing the  
compositing memory;
- (v) simultaneously rendering a band of a first  
25 object, and compositing that band of the page  
image;

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(vi) repeating step (v) for each further object of the page image;

(vii) compressing the band of the page image; and following the conclusion of step (vii) for the last

5 band:

(viii) loading Huffman tables for expansion; and

(ix) printing the entire image.

70. A method as claimed in claim 6, including the image creation process of printing an existing page image, said image creation process comprising the sequential processing steps of:

(i) loading Huffman tables for expansion; and

(ii) printing the page image.

71. A method as claimed in claim 6, including the image creation process of printing a compressed image with matte and graphics, said image creation process comprising the sequential processing steps of:

(i) creating a display list;

(ii) creating a render list from said display list;

20 repeating steps (iii) to (xi) for each band of the image:

(iii) simultaneously rendering a band of objects, clearing the compositing memory, and loading Huffman tables for expansion;

25 (iv) simultaneously rendering a band of objects, and expanding a band of a file image;

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- (v) simultaneously rendering a band of objects,  
and expanding a band of file matte;
  - (vi) simultaneously rendering a band of objects,  
and buffering the file image and matte;
  - 5 (viix) simultaneously rendering a band of objects,  
and formatting the file image and matte;
  - (viii) simultaneously rendering a band of objects,  
loading Huffman tables for compression and  
compositing the band of the file using the  
10 file matte;
  - (ix) compositing the band of the object-based  
image;
  - (x) compressing the band of the page image; and  
following the conclusion of step (xii) for the last  
15 band:
  - (xi) loading Huffman tables for expansion; and
  - (xii) printing the page image.
72. A method as claimed in claim 6, including the image  
creation process of printing two images with object  
20 mattes and text, said image creation process comprising  
the sequential processing steps of:
- (i) creating a display list;
  - (ii) creating a render list from said display list;
  - repeating steps (iii) to (xiii) for each band of the  
25 image:

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- (iii) simultaneously rendering a band of object  
matte, clearing the compositing memory, and  
loading Huffman tables for expansion;
- 5 (iv) simultaneously rendering a band of object  
matte, and expanding a band of a first file  
image;
- (v) simultaneously rendering a band of object  
matte, and buffering the band of the first  
file image;
- 10 (vi) rendering a band of object-based matte with  
the band of first file image;
- (vii) simultaneously rendering a band of object-  
based matte, and compositing the band of the  
first file image with the object-based matte;
- 15 (viii) simultaneously rendering a band of object-  
based matte, and expanding a band of the  
second file image;
- (ix) simultaneously rendering a band of object  
matte, and buffering the band of the second  
file image;
- 20 (x) rendering a band of object-based matte for the  
second file image;
- (xi) simultaneously rendering a band of objects,  
loading Huffman tables for compression, and  
compositing the band of the second file image  
with its matte;
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(xii)compositing a band of object-based text image;  
(xiii)compressing the band of the page image; and  
following the conclusion of step (xiii) for the last  
band:

- 5       (xiv)loading Huffman tables for expansion; and  
      (xv) printing the page image.

73. A method as claimed in claim 6, including the image  
creation process of printing two images with file mattes  
and text, said image creation process comprising the  
10 sequential processing steps of:

- (i) simultaneously rendering a band of objects,  
          loading Huffman tables for expansion, and  
          clearing the compositing memory;  
      (ii) creating a display list;  
15       (iii)creating a render list from the display list;  
repeating steps (iv) to (xvi) for each band of the  
image:

- (iv) simultaneously rendering a band of objects,  
          clearing the compositing memory, and loading  
20       Huffman tables for expansion;  
      (v) simultaneously rendering a band of objects,  
          and expanding a band of a first file image;  
      (vi) simultaneously rendering a band of objects,  
          and expanding a band of a first file matte;

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- (vii) simultaneously rendering a band of  
objects, and buffering the band of  
first file image and first file matte;
  - 5 (viii) simultaneously rendering a band of  
objects, and formatting the band of file image  
and matte;
  - (ix) simultaneously rendering a band of objects,  
and compositing the band of first file image  
using the first file matte;
  - 10 (x) simultaneously rendering a band of objects,  
and expanding a band of a second file image;
  - (xi) simultaneously rendering a band of objects,  
and expanding a band of a second file matte;
  - 15 (xii) simultaneously rendering a band of  
objects, and buffering the band of the second  
file image and the band of second file matte;
  - (xiii) simultaneously rendering a band of  
objects, and formatting the second file image  
and matte;
  - 20 (xiv) simultaneously rendering a band of  
objects, loading Huffman tables for  
compression, and compositing the band of the  
second file image and its matte;
  - (xv) compositing a band of object-based image text;
  - 25 (xvi) compressing the band of the page image;  
and



following the conclusion of step (xvi) for the last band:

- (xvii) loading Huffman tables for expansion; and
- (xviii) printing the page image.

5 74. A method as claimed in claim 6, including the image creation process of printing three opaque rectangular images and text, said image creation process comprising the sequential processing steps of:

(ii) creating a display list;

10 (iii) creating a render list from said display list;

repeating steps (iii) to (viii) for each band of the image:

15 (iii) simultaneously rendering a band of objects, clearing the compositing memory, and loading Huffman tables for expansion;

(iv) simultaneously rendering a band of objects, and fast writing a band of a first file image into said compositing memory;

20 (v) simultaneously rendering a band of objects. and fast writing a band of a second file image into said compositing memory;

25 (vi) simultaneously rendering a band of objects, and fast writing a band of a third file image into said compositing memory;

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(vii) simultaneously loading Huffman tables for  
compression, and compressing a band of the  
page image from said compositing memory; and  
(viii) compressing the band of the page image;  
5 following the conclusion of step (viii) for the last  
band:

- (ix) loading Huffman tables for expansion; and
- (x) printing the page image.

75. A method as claimed in claim 6, including the  
10 image creation process of zooming to a workscreen, said  
image creation process comprising the sequential  
processing steps of:

- (i) loading Huffman tables for expansion; and
- (ii) zooming to a workscreen.

15 76. A method as claimed in claim 6, including the image  
creation process of compositing graphics to a  
workscreen, said image creation process comprising the  
sequential processing steps of:

- (i) creating a display list;
- 20 (ii) creating a render list from said display list;  
repeating the following steps for each band of the  
image:
  - (iii) rendering a band of objects;
  - (iv) simultaneously rendering a band of a first  
25 object, and compositing said band to said  
workscreen;

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(v) repeating step (iv) for each further object of the image;

(vi) compositing the band to the workscreen.

77. A method as claimed in claim 6, including the image  
5 creation process of compositing a file to a workscreen  
using a file matte, said image creation process  
comprising the sequential processing steps of:

(i) creating a display list;

(ii) creating a render list from said display list;

10 (iii) loading Huffman tables for expansion;

repeating the following steps for each band of the  
image:

(iv) expanding a band of the file image;

(v) expanding a band of the file matte;

15 (vi) buffering the band of file image and the band  
of file matte;

(vii) performing a quick software zoom on said  
buffered band;

20 (viii) formatting the band of file image and  
matte; and

(ix) compositing the band to the workscreen.

78. A method as claimed in claim 6, including the image  
creation process of writing a file image to a workscreen  
without a matte, said image creation process comprising  
25 the sequential processing steps of:

(i) creating a display list;

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(ii) creating a render list from said display list;  
(iii) loading Huffman tables for expansion;  
repeating the following step for each band of the image:  
(iv) zooming the band to the workscreen.

5 79. A method as claimed in claim 6, including the image creation process of compositing a file image to a workscreen using an object matte, said image creation process comprising the sequential processing steps of:

(i) creating a display list;  
10 (ii) creating a render list from the display list;  
(iii) loading Huffman tables for expansion;  
repeating the following steps for each band of the image:  
(iv) expanding a band of the file image;  
15 (v) buffering the band of the file image;  
(vi) performing a quick software zoom on the band of the file image;  
(vii) rendering a band of matte with the band of file image; and  
20 (viii) compositing the band to the workscreen.

80. A method as claimed in claim 6, including the image creation process of performing a test scan, said image creation process comprising the sequential processing steps of:

25 (i) loading Huffman tables for compression;  
(ii) scanning image data to the workscreen.

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81. A method as claimed in claim 6, including the image creation process of scanning a page image, said image creation process comprising the sequential processing steps of:

- 5       (i) loading Huffman tables for compression;  
         (ii) scanning the page image.

82. A method as claimed in claim 6, including the image creation process of scanning, trimming and filing a page image, said image creation process comprising the

10 sequential processing steps of:

- (i) loading Huffman tables for compression;  
         (ii) scanning the page image;

repeating steps (iii) to (vi) for each band of the image:

- 15       (iii) loading Huffman tables for expansion;  
         (iv) expanding a band of the file image;  
         (v) loading Huffman tables for compression;  
         (vi) compressing the band of the file image;  
              following the conclusion of step (vi) for the  
20       last band:  
         (vii) writing the compressed data to a non-volatile  
              storage means.

83. A method of creating an image characterized in that said image is formed as a plurality of bands, in which  
25 multiple passes over said bands are used to edit said image, said bands being stored as compressed image data.

ADD A2

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